SongPainter™
An Adventure In Music

Written by Jim Monaco
Program by Dirk Johnston and Jim Monaco

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PRELUDE

If you already know how to use your Macintosh ™ with MacPaint ™ or MacWrite ™, you'll be writing music with SONGPAINTER ™ in no time. You don't need to be able to read music to use SONGPAINTER. You don't have to know anything about music except what sounds good to you.

If you are new at using a Macintosh, read your Macintosh owner's guide to become familiar with basic operations and terminology. You should know how to use the mouse, and you should know what to do when instructions say to click, cut, paste, rubberband, or drag.

All you need to use SONGPAINTER is your Macintosh, the SONGPAINTER disk, and blank disks for saving your songs.

SONGPAINTER paints your music with pictures. The best way to learn to use it is to experiment with the menus and window options. You can use special effects, accents, more instruments, and get very sophisticated with your songs. If you're not sure what the menu options do, the help menu can get you on-screen information about all the other menus and their options.

The first chapter of this booklet, "SONGPAINTING," takes you through the steps of writing a song with single notes. It tells you how to define the characteristics of a note, how to put the note into the song window, and how to name and save your song when you finish it.

Chapter Two tells you how to change the characteristics of notes you have written and how to move them around in the song.

In chapter Three, you find out about using tracks, chords, sequences, and special effects to jazz up your basic melody. This chapter also tells you how to go for help when you aren't sure what to do, and it gives you shortcuts for a lot of the SONGPAINTER menu options.

Music words or special SONGPAINTER words that you may not know are defined on the inside of the back cover of this booklet.

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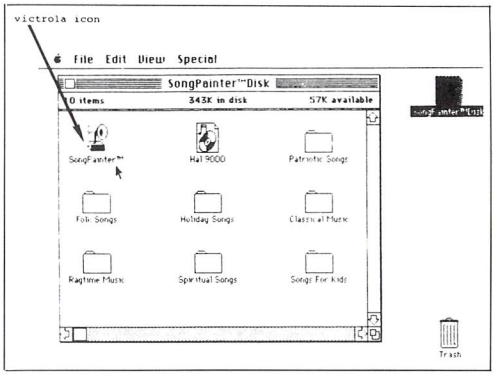
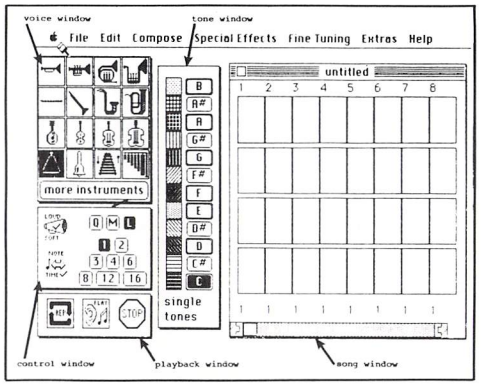
Chapter One: SongPainting



SongPainter Disk Window



SongPainter Screen

Tuning Up

1. Turn on your Macintosh and put the SongPainter disk in the disk drive. You will soon see the desktop screen with the icons for the SongPainter disk and the trashcan.

2. Double click the SongPainter disk. This opens the SongPainter disk window, which looks like the one at the left.

3. The record icon, "Hal 9000," represents a document that illustrates the range of sounds you can create with SongPainter. The file folders contain other SongPainter documents. To start a new song, double click the victrola icon. This makes the SongPainter screen appear. The SongPainter screen looks like the example below.

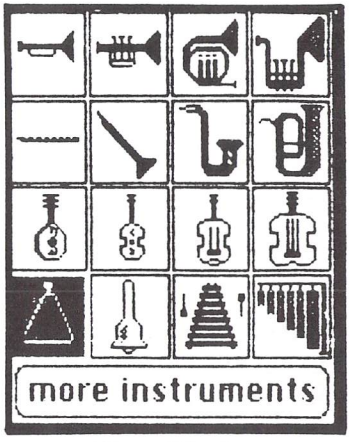
The easiest way to find out how to use SongPainter is to write a song, and for illustration, one you have probably heard before. Suppose you are Johannes Brahms, and you're about to use SongPainter to compose a lullaby. You should make a couple of adjustments before you actually start composing.

Fine Tuning

You need to select the song's timing, or meter from the fine tuning menu. You can make other fine tuning adjustments if you want to at this time, but you don't have to be concerned with them now. Select 3/4 time for the meter.

You can set SongPainter so you can hear the tones and voices as you click them. This is called **play as you go**, and the control to turn it on and off is in the compose menu. It is turned on when there is a check beside it on the compose menu.

Voice Window



Voice Window

One of the note's characteristics is the voice it has—you must decide what instrument will play the note. The instrument gives the tone its quality, sometimes called "timbre." You choose it from the voice window, the collection of instruments in the upper left corner of your screen.

Each row of the voice window represents a group of musical instruments, such as brass, woodwinds, strings, bells, and so on. For more instruments and sounds, click the **more instruments** button. The voice window now shows organs, pianos, and waveforms for more unconventional musical sounds. Click **more instruments** again to get back to the original voice window.

Each column of the voice window represents an octave (range of frequencies) for the group of instruments. They are ordered from left to right from highest to lowest octaves, from high-pitched to low-pitched. For example, look at the first row: a bugle plays higher pitched notes than a trumpet; a trumpet plays higher pitched notes than a French horn; and a French horn plays higher pitched notes than a tuba.

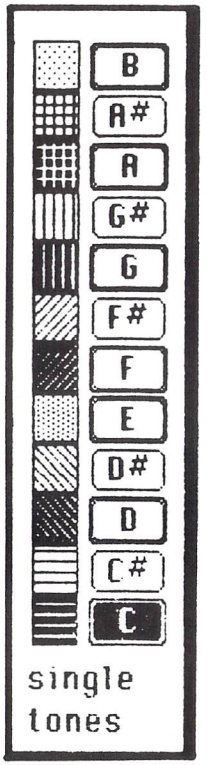
On your screen, the square with the triangle is dark, showing that the triangle is the voice chosen for the next note. You didn't really choose it, but that's the way the voice window always starts out.

You don't want to start your lullaby with a triangle, however. You want to start it with a soothing woodwind, so click the saxophone box. When you do, you hear the sound of the saxophone.

Tone Window

The tone window is where you find the tones and chords you can use in your songs. Tone is sometimes called "pitch." In the example on the next page, the tone window has the title "single tones" and shows a column of twelve tones. Each tone is represented by its own pattern of dots or lines.

If you select **chords** from the compose menu, the title in the tone window does not say "single tones." Instead, it says "major chords," or whatever type of chords you chose. Chapter three tells you how to use chords.



Tone Window

The box for "C" is dark because that's the way the tone window starts out. Try clicking on other tones in the tone window. As you click each one, it becomes dark, and the tone that was dark before becomes light. With **play as you go** turned on, you also hear the sound of each tone as you click it.

Notice also that some of the tone buttons have an outline, or extra border around them. These are the tones that make up the scale of a particular key. In this example, they make up the key of C. The tones C, D, E, F, G, A, and B make up the C scale.

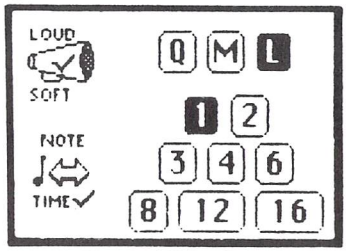
To paint a song in a different key, choose **key signature** from the fine tuning menu to choose the key you want. Different keys outline different tones in the tone window because each key has its own scale. Some keys show flats instead of sharps in the tone window.

Don't worry if you don't know very much about key signatures and when to use which ones. You can leave the tone window set for the key of C, which will serve you well for many songs. You are not limited to the outlined tones. You can use all of the tones in the tone window.

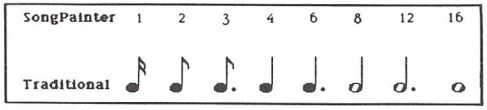
If you are not sure what tone to use when you are writing a song, click on different tones to see how they sound. Brahms started his lullaby with B, so click on B in the tone window. The sound you heard was a saxophone playing the tone B.

Control Window

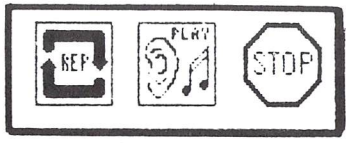
The control window lets you control how loud each note is and how long it lasts. The letter **Q** beside the megaphone is for quiet, the letter **M** is for medium, and the letter **L** is for loud. When this screen first appears, the loudness (or intensity) is set on **L**. Unless



Control Window



SONGPAINTER and Traditional Note Counts



Playback Window

Repeat Off

Repeat On

you change it, the note will be loud. Since you are writing a lullaby, click on **M** to give the note a more moderate intensity.

Note time is for how long the note is held, or its duration. You can cause a note to be held for the number of counts represented by the numbers in the control window. Unless you change it, the note time is set for **1**, which means the note will last for one count. For the first note of this lullaby, don't change it.

There is a relationship between SONGPAINTER note time and traditional methods for counting rhythm and meter. The chart at the left compares SONGPAINTER note times with conventional music notation.

PLAYBACK WINDOW

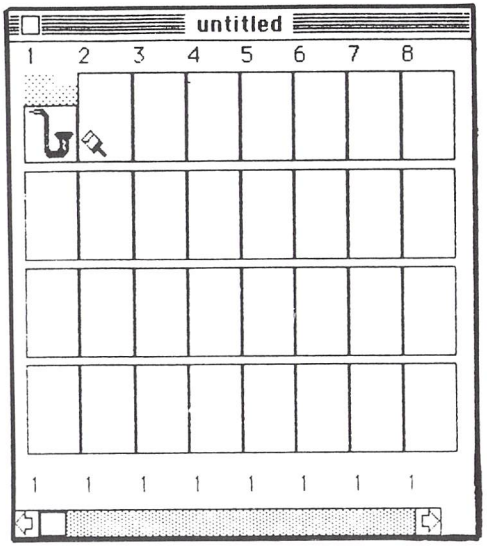
The playback window has controls for repeat, play, and stop for you to listen to your song. If the **repeat** button (the one on the left) is on, your song plays over and over when you click the **play** button. Click the **play** button to listen, and click the **stop** sign when you've heard enough.

When the SONGPAINTER screen first comes up, the repeat button is turned off. The center is light, and the arrows around the edge are dark. Every time you click the repeat button, it turns on or off.

SONG WINDOW

The song window is where you put the note you have just defined and all the rest of the notes that make up your song. From the top left, this window has a small square, called a **close box**. Clicking this box is a quick way to put the song away when you are through working on it.

As yet, you haven't named your lullaby. You get a chance to do that later, and your title will appear in the **title area**. Right now, the title area says **untitled**, which means that the song is a new song that hasn't ever been saved.



Song Window

The row of numbers all the way across near the top of the window is for the counts in each measure. The example at the left shows the first eight counts (the first eight frames) for the first measure of your lullaby. The numbers that go across near the bottom of the window show which measure you are in.

The rectangle at the bottom with an arrow on each end is the **scroll bar**, and it acts just like any other Macintosh scroll bar control. When you click once on either arrow, the song moves one grid in the direction of the arrow.

Holding the mouse button down with the paintbrush on an arrow causes continuous scrolling. If you click in the gray area of the scroll bar, the grid moves eight frames to the right or left, depending on which end of the scroll bar the paintbrush is on.

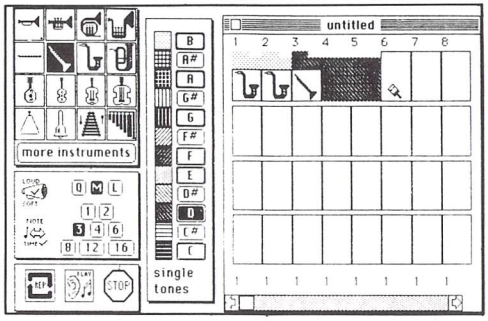
The song grid is the center of the window—the four rows and eight columns of rectangles where you put your notes. Before you put a note in the grid, though, make sure your note characteristics are set correctly.

The voice window should be set for **saxophone**; the tone window for **B**; loudness, **M**; and note time, **1**. Now, click the first frame in the first row, or track, or your song window. If your screen looks like the example at the top of this page, you have just painted the first note of Brahms' Lullaby!

The picture of the instrument shows you the voice of your note, and the pattern indicates the tone. The height of the pattern in the frame indicates the note's loudness, and the number of frames it takes up in the row shows the note's duration. This is a one-count note, so it takes up only one frame in the row.

You can put a note in any row you want. There are four rows, or tracks, so you can use four different instruments or four notes at the same time in the same column. You generally want to start out in the first column, unless you want a rest, or silence, at the beginning of your song.

From The Top



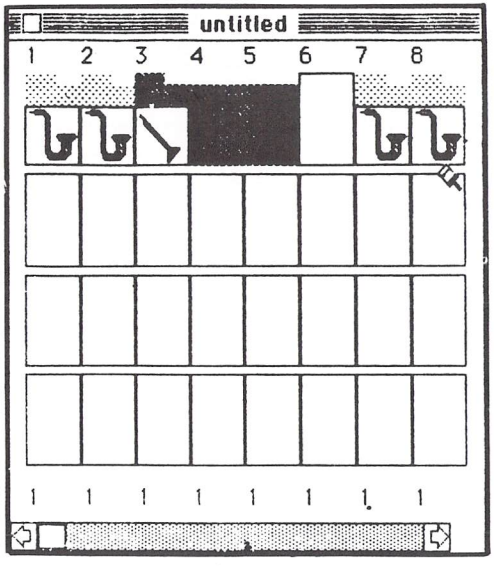
First Three Notes of Brahms' Lullaby

Now you know how to get a note into the song grid, and you are ready to write some more of your lullaby. You should have a **B** note on your screen now. Make the second note the same as the first. Leave all the options in the voice, tone, and control windows the same as they were for the first note, and click the second frame of the song grid.

For the third note, click on the **clarinet**, and click **D** for tone. Leave the loudness control the same, but change the note time to **3**. Now click the third frame on the song grid, and your screen should look like the one at the left.

Because you defined the clarinet note to have a note time of 3, it takes up three frames on the grid. The height of the shaded area in the frames is the same as for the first two notes because you didn't change the loudness.

You have written enough of the lullaby to see how the first part of it sounds. Click on the **play** button to hear your first three notes.



Brahms' Lullaby—First 8 Frames

The Beat Goes On

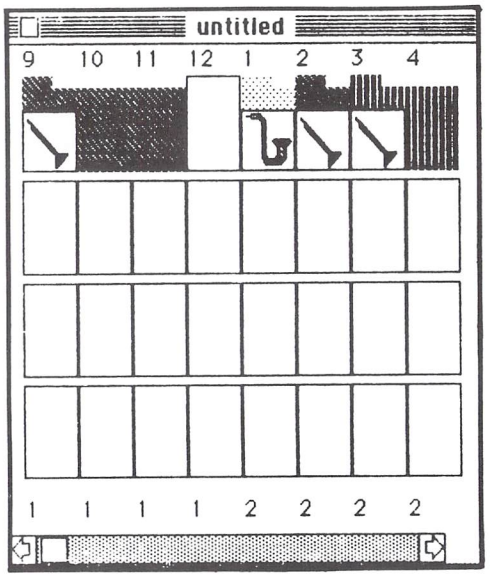
Make a one-count rest in the sixth frame. All you have to do to make a rest is not put anything in the frame or frames where you don't want any sound. The number of frames you leave empty depends on how long you want to have no sound in your song.

For the next (fourth) note, go back to the voice window and click the **saxophone** again. Click on **B** in the tone window. Leave the loudness control at **M**, but click on **1** for note time. Click on frame 7 in the song window. (You skip frame 6 because it is a one-count rest.)

The fifth note is the same as the fourth. Click frame 8, and your screen should look like the one at the left. Don't panic if it doesn't. You'll find out how to make changes in the next chapter.

Now you have to scroll the song window to the right before you can continue. Scroll eight frames so the first frame you see is number 9.

For frames 9, 10, and 11 of the first measure, write the clarinet note you used for frames 3, 4, and 5. If you don't remember how to do it, see what the note looks like in one of the preceding examples for Brahms' Lullaby.



Brahms' Lullaby—End of 1st Measure, Beginning of 2nd Measure

Your first measure is almost finished. Frame 12 is another one-count rest. The second measure starts out with the same note the first measure started with: voice, **saxophone**; tone, **B**; loudness, **M**; note time, **1**.

For the second note of the second measure, don't change the loudness or note time, but voice and tone are different. Change voice to **clarinet** and tone to **D**.

The next note has the same loudness and voice as the one you just wrote, but the tone and note time are different. Change tone to **G** and note time to **2**.

By now, your screen should look like the example at the left. You should also have a pretty good idea of how SONGPAINTER works.

For now, you can put the lullaby away. The following section, "Finale," tells you how. If you want to see how Johannes Brahms finished the lullaby, you can play the complete version on the SONGPAINTER disk after you close this version.

FINALE

You can close your song with the **close** option on the file menu or by clicking the close box at the top of the song window. They both work the same way.

SONGPAINTER asks if you want to save your song. Even if you're not particularly fond of it, answer "yes" to save your version of Brahms' Lullaby. It will be useful when you get to chapter three.

If the song you are saving is a new one and still untitled, as this one is, you will be asked to type in a title for it. SONGPAINTER already has Brahms' Lullaby on the disk, so you should name this version something else to avoid confusion. Call it "My Lullaby." Use your title to retrieve the song any time you want to do more work on it, or any time you want to listen to it.

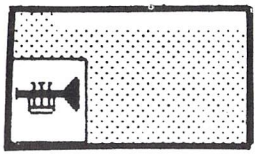
Chapter Two: SongChanging

As you work on a song, you may realize that you clicked a tone you didn't really want, or that you chose a woodwind when you wanted a piano, or that you wish you'd made the note time longer or shorter.

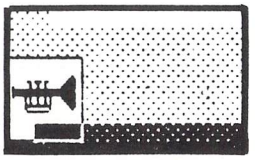
Changes are no problem. They are part of what makes SONGPAINTER fun to work with. Choose **new** from the file menu so you can experiment with different ways to change your notes, cut them, or move them around in a song. A change begins with selecting the note or notes you want to change. It ends when you deselect the note or notes.

Selection

A selected note is one that is flagged so SONGPAINTER recognizes that it is the one you want to change. You can select a note, a group of notes on the same track, or groups of notes across several tracks.



Note Not Selected



Note Selected

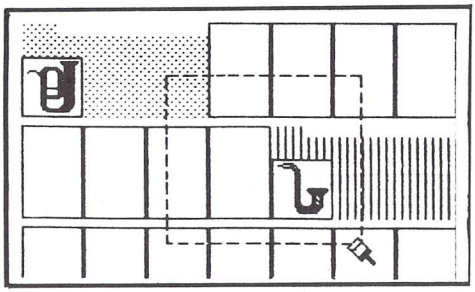
You can select as many notes as you want to, but all selected notes change to any voice, tone, loudness, or note time characteristic you click while the notes are selected.

To select a single note, move the mouse so the paintbrush is on the note you want to select, and push the mouse button down. When you release the button, the note is selected.

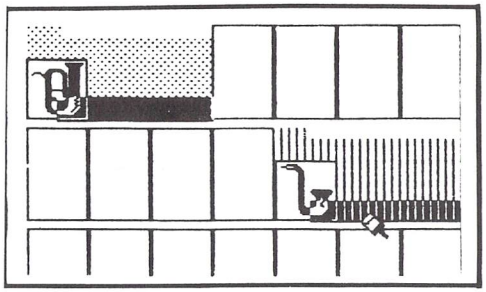
The illustration at the left shows the difference between a note that is not selected and one that is selected. When a note is selected, the bottom edge changes so the parts that were white become black, and the parts that were black change to white.

You can use **rubberbanding** to select two or more notes at the same time. When you hold the mouse button down and move the mouse, the paintbrush draws a rectangle on your screen. Move the mouse so that at least part of every note you want to select is inside the rectangle.

In the following example, the dotted square in the top illustration is the result of moving the paintbrush from frame 3 in the first



Notes Rubberbanded



Notes Selected

track to frame 6 in the third track. When the mouse button was released, the notes were selected, as shown in the second illustration.

You can use rubberbanding to select a group of notes on a track or on more than one track. You can select as many as 64 frames on a track with one rubberband, and you can include all four tracks.

If you drag the paintbrush from the top corner of a note to the bottom of the track at the left or right boundary of the song grid, the song grid automatically scrolls until you release the mouse button or until you arrive at the beginning or end of the song grid. Every note included in the rubberband is selected when you release the button.

To select all four tracks, drag the paintbrush from track 1 to the bottom of track 4 before you start scrolling.

Deselection

To deselect a note is to take away the flag that tells you (and SONGPAINTER) that it is the note to change. Click the mouse in any desktop border area or in the parts of the song window where the frames and measures are numbered.

This deselects all of the selected notes in the composition. You can also deselect notes by choosing **paste** from the edit menu or by creating a new note in an empty frame. When a note is deselected, the bottom edge looks like it did before the note was selected.

Change Characteristics

When a note is selected you can change its special effects and any of its characteristics (tone, voice, loudness, and note time). To change special effects, use the special effects menu. To change a characteristic, click on the new characteristic in the voice, tone, or control window.

The selected notes take on only the characteristics you click while they are selected. When you click on a characteristic, however, every note that's selected gets changed to that characteristic.

For example, if you click **C** for tone, every selected note changes to C, regardless of what it was before. When you click on a voice, every selected note takes on that voice. If you click a letter for loudness, all the selected notes become that loud.

So far you haven't run into any complications in changing a note's characteristic. You may, however, when you change a note's duration. When you change the note time, you have to consider the effect it has on the note that comes after it.

If you increase a note's duration so that it overlaps the next note, that next note disappears when you deselect the extended note. This may have an unintended effect on your song.

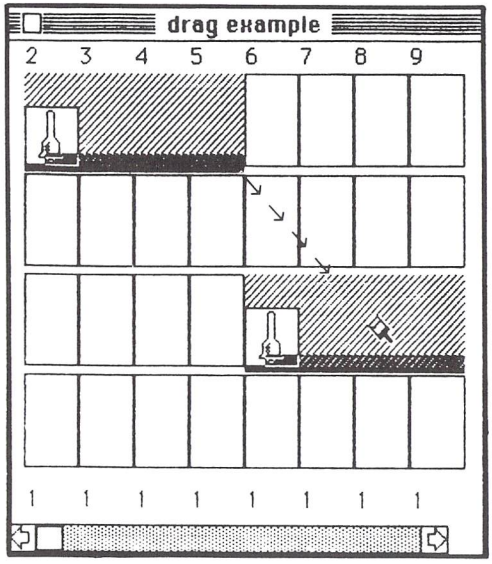
There is one situation in which the control for changing note time will not work. If more than one note is selected on the same track, clicking the note time button will not cause a change. This keeps you from having to worry about the effects of extending the duration of more than one note at a time.

If you see that you may lose a note by increasing the duration of the note ahead of it, you can choose **undo** from the edit menu, and the note's duration will go back to what it was before you increased it. If you want the longer note in any case, you will probably want to revise the rest of the track.

If you decrease a note's duration, you have a rest in your song that you may not want. You may want to add a note or change notes further along the track to fill in the gap.

Change Position

To move a selected note to another location in the song, move the mouse so the paintbrush is on the note you want to move. Hold the mouse button down while you drag the note to where you want it. Then release the button.



Note Moved to Frame 6, Track 3

In the example at the left, the note has been dragged from frames 2 through 5 of track one to frames 6 through 9 of track three.

If notes are already selected, the screen won't scroll automatically when you drag the paintbrush to the right or left boundary of the song window.

Therefore, you are pretty well limited to the visible screen area when you move a note. However, you can move the note so it begins or ends as much as one frame outside the left or right boundary.

You could move the note in this example so it begins in any frame, 1 through 10, even though frames 1 and 10 do not currently show in the window.

When you change the position of a note, you could run into the same problem you have when you extend a note's duration. Before you deselect, check to see whether the move will cause you to lose a note. If you need to make adjustments for the move, it's nice to be aware of it ahead of time.

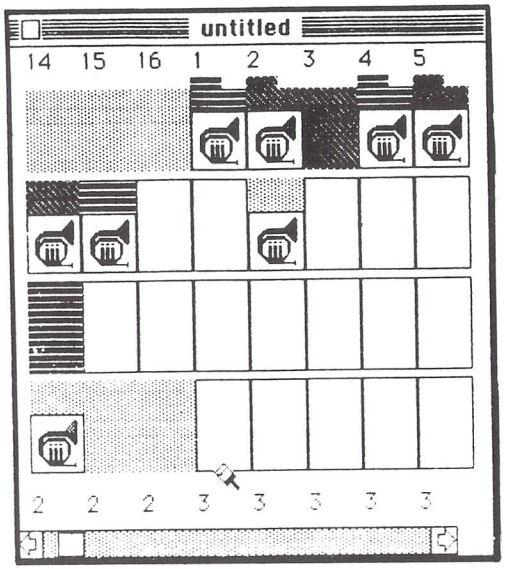
Using The Edit Menu

You can also change a selected note by using **cut**, **copy**, **paste**, and **clear** from the edit menu. SONGPAINTER explains all of these operations on-screen through the help menu.

In the case of **cut**, a note is removed from the song and placed in the Macintosh's edit buffer. For **copy**, a copy of the note goes to the edit buffer, but the note stays where it is in the song.

When a note has been cut or copied into the edit buffer, you can use **paste** to copy it into the song as often as you want. Paste first of all deselects any notes that are selected. Then it places the notes that you've put in the edit buffer in the left-most column of the song window.

This doesn't change any notes you might already have in that column. The pasted notes are selected, and you can move them



Blank Measure To Be Added Between Measure 1 and 2

around, change them, and deselect them like any other selected note. SONGPAINTER doesn't treat selected notes as part of the song until they are deselected.

If you want to take a note out of your song and you don't want to save it to use somewhere else, you can cut it without putting it in the edit buffer. To do this, make sure only the notes you want to cut are selected. Then choose the **clear** option from the edit menu. This makes every selected note disappear from your song.

You can also add and cut entire measures from your song. If you decide something is lacking, you can add a blank measure to fill in with more notes.

To do this, choose **insert blank measure** from the edit menu. This adds a blank measure in front of the measure number that shows in the left-most column.

In the song window at the left, for example, choosing **insert blank measure** adds a blank measure as measure 2. What was originally measure 2 becomes measure 3; measure 3 becomes measure 4, and so on.

Measure 1 does not change. The rest of the song is pushed forward by one measure, but is otherwise unchanged.

You can take a whole measure out of your song if you choose **yank out a measure** from the edit menu. When you do this, the measure whose number appears in the left-most column of the song grid disappears from the song.

In the example above, choosing **yank out a measure** removes measure 2 from the song. Measure 3 in the example becomes measure 2; measure 4 becomes measure 3, and so on. The process is the reverse of adding a blank measure.

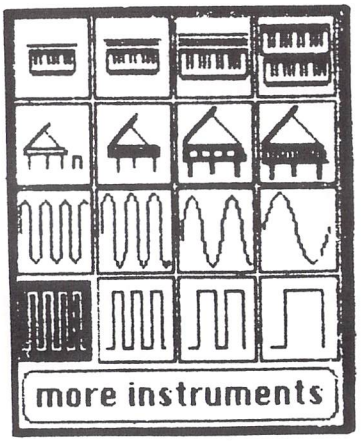
If you have any notes selected, they will not move when you add a measure or take a measure out of your song. SONGPAINTER does not consider selected notes a part of the song. In such a case, you need to decide where to put the selected notes after you add or delete the measure.

If you add, cut, change, or move a note, notes, or a measure, and wish you hadn't, choosing **undo** from the edit menu returns the song to the way it was before your most recent change.

Chapter Three: Some Jazzy Features

By now you should be at ease with how to write a song using single tones, and you know how to change notes. You may have already been experimenting and discovered some of the features this chapter is about—adding tracks (more rows of notes), using chords, and special effects to jazz up your song. This chapter also tells you about the help menu and gives you some shortcuts that will save you time when you become a more practiced song painter.

Laying Down Tracks



Voice Window

You can make your melody more interesting by adding more tracks for harmony or rhythm. This is also called "counterpoint." Follow the instructions below to create an eight-frame segment of a song that has three tracks. All the notes for track one go on the top row of the song grid; all the notes for track two go on the second row, and so on.

After you go through the instructions on this page and the next one, you'll see an example of what your screen should look like when you finish the segment. Try not to look at it until after you have all three tracks on your screen.

You need pianos for this segment, so click the **more instruments** button on the voice window. The piano icons are on the second row.

In the instructions that follow, "first piano" means the smallest one—the one in the left-most column. "Third piano" means the piano in the third column from the left, and so on.

- Select **new** from the file menu to start a new song. If you have a song on your screen, you need to close it first.

- Go to the fine tuning menu and choose 3/4 time for the meter. If you want to hear the tones and voices as you choose them, be sure **play as you go** is checked on the compose menu.

First Track:

- ■ First note: voice, **third piano**; tone, **A**; loudness, **L**; note time, **4**; song grid, frame 1.
- ■ Second note: voice, **third piano**; tone, **A**; loudness, **L**; note time, **1**; song grid, frame 6 (frame 5 is a rest).
- ■ Third note: voice, **second piano**; tone, **C**; loudness, **L**; note time, **1**; song grid, frame 7.
- ■ Fourth note: voice, **second piano**; tone, **E**; loudness, **L**; note time, **1**; song grid, frame 8.

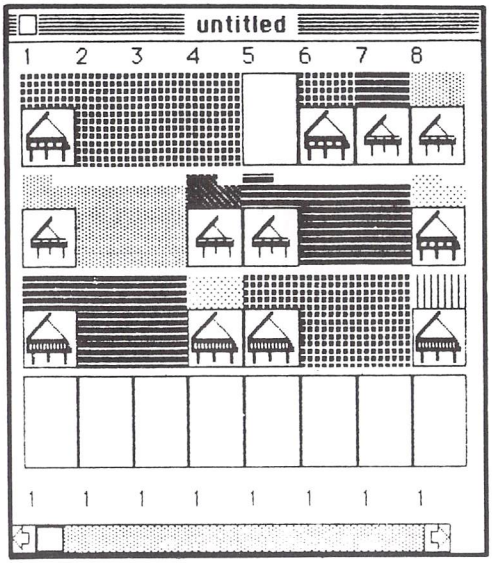
Second Track:

- ★ First note: voice, **second piano**; tone, **E**; loudness, **M**; note time, **3**; song grid, frame 1.
- ★ Second note: voice, **second piano**; tone, **D**; loudness, **M**; note time, **1**; song grid, frame 4.
- ★ Third note: voice, **second piano**; tone, **C**; loudness, **M**; note time, **3**; song grid, frame 5.
- ★ Fourth note: voice, **third piano**; tone, **B**; loudness, **M**; note time, **1**; song grid, frame 8.

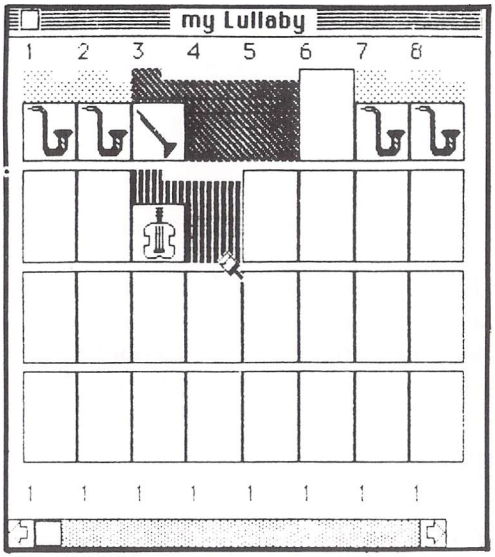
Third Track:

- ● First note: voice, **fourth piano**; tone, **C**; loudness, **M**; note time, **3**; song grid, frame 1.
- ● Second note: voice, **fourth piano**; tone, **B**; loudness, **M**; note time, **1**; song grid, frame 4.
- ● Third note: voice, **fourth piano**; tone, **A**; loudness, **M**; note time, **3**; song grid, frame 5.
- ● Fourth note: voice, **fourth piano**; tone, **G#**; loudness, **M**; note time, **1**; song window, frame 8.

You have just written a small part of Johann Sebastian Bach's "St. Matthew Passion," and your screen should look like the example at the top of the next page.



Counterpoint: Song With 3 Tracks



Melody With First Note of Chord

How did you do? If your screen is not like the example, this is a good time to try out some of the ways to change a song that you learned about in chapter 2.

Have you played the segment back to see how it sounds? If you want to listen to just one track, go to the fine tuning menu and turn off the tracks you don't want to hear. When a track is turned off, the check mark beside it disappears.

You can select any combination of tracks you want when you play a song. When you close the segment you just wrote, there is no need to save it because a good part of "St. Matthew Passion" is stored on the SONGPAINTER disk in the classical music folder.

COMPOSING WITH CHORDS

SONGPAINTING with chords involves using several tracks for added voices and harmony. A chord is three or more notes played at the same time by the same instrument. There are two ways you can make a chord with SONGPAINTER. You can build your own, or you can select it from a list of ready-made chords.

To follow the demonstration of how chords work and how to use them, you need to close any song you may have open. Next, get your version of Brahms' Lullaby ("My Lullaby") from the **open** option in the file menu.

You are going to add a chord beginning with the third frame of the first measure. Click on these characteristics: voice, **bass** (fourth string); loudness, **M**; note time, **2**.

Now you need to choose three tones and three positions, since a chord is made up of three notes played at the same time. The chord you are making is called G major, and it is made up of the single tones G, B, and D. For the first note of the chord, click G, and then click frame 3 on the second track.

When you make a chord using single tones, you add each note one at a time. This is how your lullaby looks when you have written the first note of the chord.

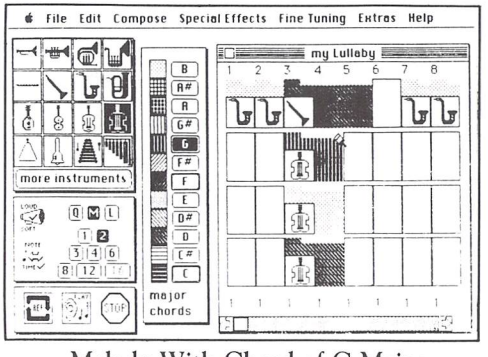
Now click **B**, and then click frame 3 on the third track. You should have a note directly under the note on the second track. To finish the chord, click **D**, and then click frame 3 on the fourth track. Compare your screen to the example at the bottom of this page.

Your song window should look like the one in the example. The difference between your screen and the one shown below is the title in the tone window. Your tone window should be titled "single tones."

But there's an easier way to make chords with SONGPAINTER. The example below shows the same chord you just built, but it came from one of the chord options on the compose menu.

To use chords that are already stored on the disk, choose the type of chord you want from the compose menu. For this example, you want the chord of G major, so choose the option for **major chords** on the compose menu. This changes the title in the tone window on your screen from "single tones" to "major chords."

It also changes the tones that are outlined. If you are still in the key of C, there are only three tones outlined: C, F, and G. These are the major chords that sound good together in the key of C. If these tones are not outlined on your screen, choose **key signature** from the fine tuning menu to change back to the key of C. The following section on chord progressions tells you more about chords that work together in different keys.



Melody With Chord of G Major

Select the three notes of the chord you just made, and choose **clear** from the edit menu to cut them from your lullaby. Your screen now shows only the melody on the first track. Click on **G** in the tone window, and click frame 3 of the second track. This one click in the song window adds all three notes for the chord to your song grid, and your screen looks like the example at the left.

CHORD PROGRESSIONS

A chord progression is a series of chords that sound good when they are played together. The following chart shows combinations

	Key of C			Key of A		
major	C	F	G	A	D	E
minor	Am	Dm	Em	F#m	Bm	C#m
dominant seventh	G^7			E^7		

	Key of G			Key of E		
major	G	C	D	E	A	B
minor	Em	Am	Bm	C#m	F#m	G#m
dominant seventh	D^7			B^7		

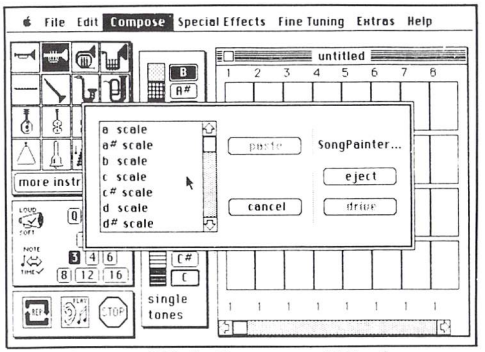
Frequently Used Chord Combinations

of major, minor, and dominant seventh chords that are often used in pop music.

It doesn't matter which chords follow which. If you combine the chords from within any one of the four groups, in any sequence, they will sound good together. That doesn't write the song for you, though. The melody line is still up to you!

Close your lullaby. Then choose **new** from the file menu so you can get a blank song grid to experiment with chord progressions. Try some combinations and play them back to see how they sound.

Composing With Sequences



Screen With Sequence Window From Compose Menu

SONGPAINTER has a place to store sequences that you can use as often as you want in your songs. These sequences are parts of songs, and they can be as long as 64 frames. SONGPAINTER comes with a stored sequence for each of the major scales. To see what they are, choose **sequence** from the compose menu.

To add a sequence to a song you are working on, choose sequence from the compose menu. Then click the name of the sequence you want to use, and click **paste** in the sequence window. Any notes that are selected become deselected. The sequence appears on your song grid beginning in the left-most frame. It is selected at this point, so you can move it where you want it and make any changes you want before you deselect it.

NOTE: You can't see sequences on the finder screen (the one with the victrola and records). They are "invisible" because you can use them only when you have a song open.

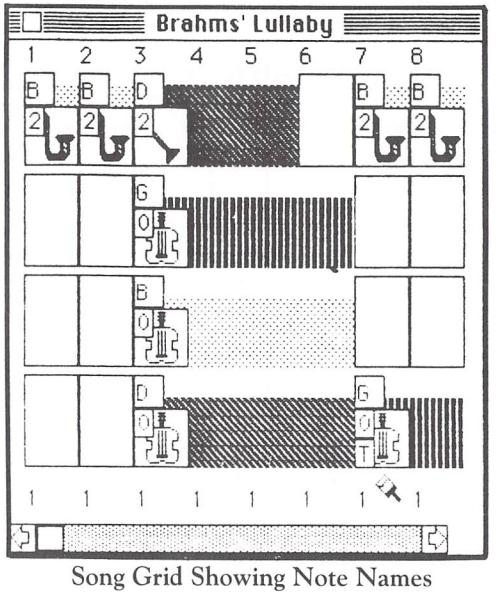
If you write a sequence that you might want to use in more than one song, you can store it with the SONGPAINTER sequences. But you have to select it before you can store it. First, select the sequence you want to save, then choose **store sequence** from the extras menu.

Type in the name of your sequence when SONGPAINTER asks for it, and click **save**. The next time you choose **sequence** from the compose menu, your sequence is listed on the sequence screen along with the names of the scales. Use the scroll bar to the right of the list of sequences to see more names. It is possible to create an entire song by putting together a series of sequences.

If you should give your sequence the same name as one of the songs already saved on the disk, SONGPAINTER puts this message on your screen: "File already exists. Do you want to replace it?"

Even though the songs and sequences are stored in different places on the disk, they can't have the same names. If you answer "no" to this question, you can keep your song, but you have to change your sequence name so it's at least slightly different from the name of the song. If you answer "yes," you don't have to change the name you typed for your sequence, but you lose the song that has the same name.

SPECIAL EFFECTS



Song Grid Showing Note Names and Special Effects

You can get fairly fancy with SONGPAINTER's special effects options. The on-screen help messages give you a general idea of what the different effects do to your notes, but the only way to really know is to try them out and play them back. When a special effect is turned on, it has a check beside it on the menu listing.

If you tell it to, SONGPAINTER displays the special effects for each note on the song grid as you paint your song. To get it to do this, choose **show effects & names** from the extras menu. Your song will then appear on the screen with additional letters and numbers as in the example at the left.

This extra does more than tell you which special effects are turned on. It also tells you what the tone of the note is. These features are indicated by codes in boxes at the beginning edge of the note.

Look at frame 7 in the fourth track in the example. The G at the top tells you the tone. The 0 in the middle tells you that special effect number 0 (plain) is turned on for that note.

The T at the bottom means the note is tied to the note just before it. If the bottom code is blank, that means the tie option is not turned on.

You can have a lot of fun trying out different special effects in your songs.

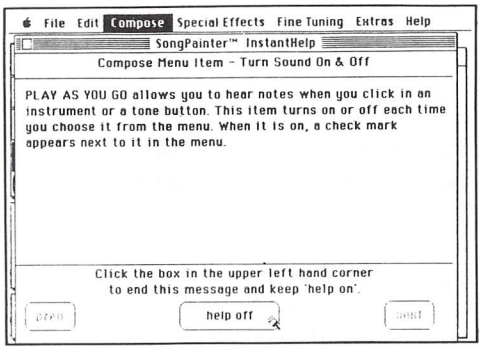
Accenting and Extra Volume

One of SongPainter's interesting features is its ability to create different rhythms. This feature, which is found in the fine tuning menu, is called accenting. With accenting, you can emphasize different beats of a waltz to get an oom-pah-pah sound, and you can create up-downs for mambos and reggae rhythms, and so on.

When you select the accenting feature, you see a window with 16 buttons, which represent the maximum number of possible beats (frames) in a measure. Turn on any combination of buttons to correspond to the frames you want to have a louder beat.

You can also use the accenting features for extra volume. You can turn on all the buttons to get an extra level of loudness for your song.

Going For Help



Compose Menu InstantHelp for Play as You Go

If you don't remember what the different windows, menus, and their options do for you, you can use the help menu to find out fast. The help menu lets you turn InstantHelp on and off. Choose **help on**, and then go to the window or menu title you want to find out more about. You can also get InstantHelp for using the desk accessories by going to the Apple menu.

Suppose you want to know more about the **play as you go** option, for example. Choose **help on** from the help menu, and then choose **play as you go** from the compose menu. Your screen looks like the example at the left.

If **play as you go** had a longer help message—one that took more than one screen—you would click the **next** button in the lower right corner to continue the message. To go back to the beginning of the help message, you would click the **prev** (for previous) button in the lower left corner. In the example, both buttons are gray because there is only one screen to the help message. When you can't go any further in a direction, the square for that direction turns gray and won't scroll.

To leave the subject of "play as you go" but still have **help on** in effect, click the close box in the upper left corner of the screen. You can choose another subject for InstantHelp, or you can go back to the help menu and choose **help off**. This returns you to where you were in your song when you stopped to ask for help.

You can also turn InstantHelp off without going back to the help menu. When you click the **help off** button at the bottom of the screen, InstantHelp is turned off, and you can go on with your song.

SHORTCUTS

There are a number of shortcuts you can take to make your song painting go a little faster. Suppose you open a song you've already started and want to finish it. There's a quick way to get to where you left off when you closed the song the last time. Go to the edit menu, and choose the option that says **go to end of song**. This takes you to where you left off, without having to scroll through the whole song to get there.

And there's a shortcut to that shortcut. Instead of going to the edit menu, you can press the **command** key and **G** at the same time and get the same result. (The command key is the key with the sign that looks like a cloverleaf or butterfly.)

You can choose many of the menu options without using the menus. After you become familiar with how SONGPAINTER works and what the menu options are, you will find the shortcuts real time savers.

Most shortcuts require pressing the command key and some other key at the same time. The following chart shows what these are, along with the key to press with the command key.

Edit	Special Effects	Fine Tuning	Extras
Z—undo	0—plain	A—play all	D—display effects & names
X—cut	1—fast decay	S—play screen	H—hide effects & names
C—copy	2—slow decay	B—play from beginning	
V—paste	3—slow attack & fast decay	E—play to end	
I—insert blank measure	4—slow attack & slow decay	M—play selected	
Y—yank out a measure	5—tremolo		
G—go to end of song	6—vibrato		
	7—sweep down		
	T—tie (slur)		
	N—no tie		

SONGPAINTER Shortcuts Using the Command Key

There are other shortcuts that work a little differently. The first two are for options in the file menu. For **clear**, you can press the **backspace** key to erase selected notes.

You can also combine the **copy** and **paste** options in a single operation with the use of the **Option** key. Select the note you want to copy, and hold the **Option** key down while you drag the note to where you want it copied. When you release the mouse button, the note appears both in its original location and in the new location in your song.

You can also set the overall playback volume and speed without going to the fine tuning menu. When you click the megaphone icon in the control window, you get the window with the selections for playback volume. When you click the note count icon in the control window, you get the window with selections for playback speed.

CODA

This booklet has been a quick introduction to how to use SONGPAINTER. If you have followed the examples step by step, you are fairly nimble with the SONGPAINTER paintbrush. Inventiveness and experimentation will make you an expert.

SONGPAINTER notation doesn't look like any kind of music you may have seen or expected to see. Music, itself, has changed over the years, and SONGPAINTER gives you a way to use as much of the musical spectrum as possible with the Macintosh. That's why it includes waveforms to sound like synthesizers, special effects to sound like video games, and tracks so you can make different things happen at the same time.

After you become an experienced song painter, you may want to add accessories to your Macintosh if you don't already have them. With a second disk drive, you won't have to spend so much time switching the SONGPAINTER disk and your song disks. If you have a printer, you can print any of the songs or screens. An external speaker will improve the playback quality of your songs and of the songs already on the SONGPAINTER disk.

As you use SONGPAINTER, don't be shy about trying out different features and combinations. Just go for it! Changes are easy, and in the course of experimentation you may hit on a sequence you wouldn't have found otherwise.

APPENDIX

SONGPAINTER™—SPECIFICATIONS*

GENERAL

User Interface:
standard Macintosh interface
on-line InstantHelp

Pre-recorded Music:
may be played back
can be modified
can be incorporated into user's music

Print:
entire composition
range of measures
screen only

COMPOSITION

Music Timings:
4/4 (common time)
3/4 (waltz time)
2/4 (march time)

Maximum Composition Length:
48 measures in 4/4 time
64 measures in 3/4 time
96 measures in 2/4 time

Built-in Chords (9):
major
minor
diminished
augmented
major 7th
minor 7th
dominant 7th
diminished 7th
augmented 7th

Special Effects:
sustain
sharp attack fast decay
sharp attack slow decay
slow attack fast decay

*specifications subject to change without notice

slow attack slow decay
tremolo
vibrato
sweep down
slurred notes

Built-in Scales:
12

Individual note loudness levels:
3

Individual note length (8):
sixteenth
eighth
dotted eighth
quarter
dotted quarter
half
dotted half
whole

PLAYBACK

Modes:
entire composition
from start to work point
from work point to end
user selected notes
display screen
repeat play
selectable play as you go

Volume:
5 levels

Tempo (quarter notes per minute):
56, 64, 72, 84, 104, 128, 176

Selectable accented sixteenth note units.

Audio Monitor:
playback progress indicator
octave vs. intensity indicator

AUDIO

Waveforms:

Brass	4 octave range—66 Hz to 990 Hz
Woodwind	4 octave range—132 Hz to 1980 Hz
String	4 octave range—132 Hz to 1980 Hz
Bells	4 octave range—264 Hz to 3960 Hz
Organ	4 octave range—132 Hz to 1980 Hz
Piano	4 octave range—66 Hz to 990 Hz
Sine Wave	4 octave range—264 Hz to 3960 Hz
Square Wave	4 octave range—33 Hz to 495 Hz

collective range of all voices is 7 octaves—33 Hz to 3960 Hz

Definitions

chord (n): three or more notes played at the same time

coda (n): a section of a musical or literary work that serves to round out, conclude, or summarize

counterpoint (n): two or more instruments playing at the same time for harmony or rhythm

deselect (v): to take a SONGPAINTER note out of the editing mode (see "select")

frame (n): one unit of the SONGPAINTER song grid

frequency (n): the number of sound waves produced in a second

harmony (n): two or more notes played at the same time

intensity (n): the loudness of a note

key (n): the scale that identifies which tones are to be consistently sharp or flat

key signature (n): identifies a key

measure (n): a convenient way of setting off segments of a composition, made up of a given number of adjacent frames; common time has 16 frames per measure; waltzes have 12 frames per measure; marches have 8 frames per measure

note (n): SONGPAINTER designation of the combination of the following four musical characteristics: tone, voice, loudness, and duration

note time (n): duration, or number of frames a note is played

octave (n): the interval between the first and eighth tones of a scale

pitch (n): the quality of a sound that is determined by the frequency of the sound waves producing it

prelude (n): an introductory section

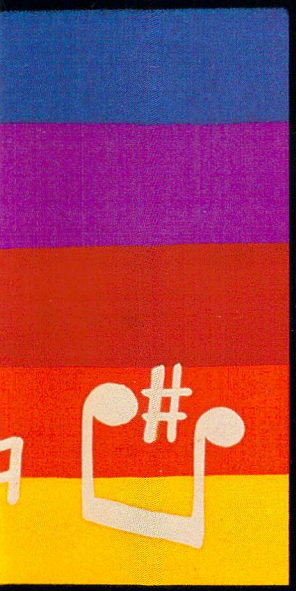
select (v): to put a SONGPAINTER note into the editing mode so it can be changed, deleted, or moved within the song

sequence (n): a short series of notes stored in the SONGPAINTER disk that can be pasted into songs

timbre (n): quality of tone distinctive of a particular instrument or voice

tone (n): the sound produced by a particular frequency

track (n): a row in the SONGPAINTER song grid to make it possible to play as many as four notes at the same time

voice (n): the SONGPAINTER waveform that gives a quality characteristic of a particular musical instrument

waveform (n): the shape and frequency of the sound wave that gives a SONGPAINTER voice its recognizable characteristics; in SONGPAINTER, waveforms do not change with frequency or duration